

what is claimed is:

Sub A1 1. Process for injection molding of injection molded parts from plasticizeable material, including injecting a first plasticized material into the hollow of an injection mold and subsequently injecting another plasticized material into the hollow, characterized in that the first plasticized material is so introduced into the hollow as to wet only a partial area of the wall surface of the hollow, and that subsequently the other plasticized material is so introduced into the hollow as to wet at least a part of the remaining area of the wall surface of the hollow.

2. Process according to claim 1, characterized in that the first plasticized material and at least one other plasticized material are injected into the hollow through the same opening.

Sub A2 3. Process according to one of the preceding claims, characterized in that the first material is injected into the injection mold to such an extent that after injection of the other material, the first material extends to a shoulder in the hollow between the partial area and the remaining area.

4. Process according to one of the preceding claims, characterized in that after injection of the first material, a slide gate is moved to clear at least a part of the remaining area.

1 5. Process according to claim 4, characterized in that the slide gate clears a
2 channel leading to a partial area of the hollow in the injection mold.

1 6. Process according to claim 4, characterized in that the slide gate directly
2 clears a partial area of the hollow in the injection mold.

1 7. Process according to one of the preceding claims, characterized in that
2 during the injection molding operation a gas space is formed in the injection
3 mold.

1 8. Process according to one of the preceding claims, characterized in that one
2 plasticized material is a relatively soft or rubber-like material, and at least
3 one other plasticized material is a relatively hard material.

1 9. Process according to one of the preceding claims, characterized in that the
2 plasticized materials exhibit at least two different colors or are transparent.

1 10. Process according to one of the preceding claims, characterized in that at
2 least one plasticized material contains gas pockets.

1 11. Process according to one of the preceding claims, characterized in that at
2 least one plasticized material contains pockets of another component.

1 12. Injection mold, characterized in that it comprises a sensor arranged at the
2 transition between the partial area and the remaining area of the wall
3 surface of the hollow in the injection mold.

1 13. Injection mold, in particular according to claim 12, characterized in that it
2 comprises a shoulder arranged at the transition between the partial area
3 and the remaining area of the wall surface of the hollow in the injection
4 mold.

1 14. Injection mold, in particular according to claim 12 or 13, characterized in
2 that it comprises a hot runner with a by-pass device which enables
3 plasticized material, streaming to the hollow, to flow into an overflow.

1 15. Injection molding device with a plasticizer unit and an injection unit,
2 characterized in that it comprises at least two secondary extruders which
3 are arranged between screw tip and nozzle tip.

1 16. Injection molding device having at least one injection unit which includes an
2 injection piston (201) for injecting melt from a melt compartment, and at
3 least two extruders (203, 204) connected to this melt compartment.

1 17. Injection molding device having a main extruder (237, 257) which includes a
2 melt compartment from which a nozzle extends via a hot runner (241), and
3 a secondary extruder (236, 258), characterized in that the melt
4 compartment is connected via a control device (230, 240) to a second
5 channel which is connected with the secondary extruder (236, 258) and
6 leads to the melt compartment, with the control device being coupled with
7 the movement of the secondary extruder.

1 18. Injection molding device according to claim 17, characterized in that the
2 control unit (230, 240) is rigidly connected with the secondary
3 extruder (236).

1 19. Injection molding device according to claim 17 or 18, characterized in that
2 the control unit (230) includes an adjustment nozzle which bears upon a
3 surface, preferably of a secondary extruder, and is secured to a flange.

1 20. Injection molding device according to one of the claims 17 to 19,
2 characterized in that the hot runner (241) includes a pressure-dependent
3 valve (245).

1 21. Injection molding device according to one of the claims 17 to 20,
2 characterized in that the control unit (230, 240) includes two partial
3 channels (234, 235; 241, 242, 243) which, depending on the position of the
4 control unit, open or close the hot runner or a feed channel from the
5 secondary extruder.

1 22. Injection molding device according to claim 21, characterized in that the
2 control unit (230) includes a partial runner block (231) which accommodates
3 the partial channels (234, 235) and is guided in a block guide (233).

1 23. Injection molding device comprising a main extruder (257) movable along a
2 path between an injection position and an idle position, and a secondary
3 extruder (258), characterized by a control unit (250) which is arranged
4 between the injection position and the idle position and includes a
5 channel (253) with an inlet (251) and an outlet (252) and which is swingable
6 between a charging position and release position, wherein the inlet (251)
7 points to the main extruder (257) in the charging position, and the
8 outlet (252) points to the main extruder (257), and wherein the path is
9 cleared for the main extruder (257) in the release position.

1 24. Injection molding device according to claim 23, characterized in that the
2 inlet (251) and the outlet (252) define an acute angle relative to one
3 another.

1 25. Injection molding device comprising a main extruder movable along a path
2 between an injection position and an idle position, and having a
3 nozzle (301) for projecting in its injection position through a nozzle
4 plate (302) and at least a portion of an adapter plate (303) through an
5 injection opening (304), and a secondary extruder which is shiftable
6 between a charging position and a release position, wherein in the release
7 position the path of the main extruder is cleared and in the charging position
8 an outlet (307) of the secondary extruder points to the nozzle (301) of the
9 main extruder, characterized in that the outlet (307) is arranged in an
10 opening (305) of the adapter plate (303) which terminates in the injection
11 opening (304).

1 26. Injection molding device according to claim 25, characterized in that the
2 secondary extruder is supported on its side of the outlet, at least in its
3 charging position, by a force applied by the main extruder.

1 27. Method of charging a main extruder of an injection molding device with a melt
2 from a secondary extruder, comprising filling the melt into the main extruder
3 via a feed channel in a hot runner which, on the one hand, is connected with
4 the main extruder and, on the other hand, leads to a mold, and so controlling
5 the injection process that in the hot runner between mold and the location at
6 which the feed channel terminates in the hot runner, a sprue of a solidified or
7 solidifying workpiece remains, until the main extruder is filled with melt.

add
A3